# Clean Technology Framework

## **Supply Side**

- ✓ Development of clean technologies
- ✓ Employment in clean tech & support industries

## **Clean Technology**

Market-driven innovations that:

- ✓ Utilize renewable resources
- ✓ Manage energy resources more efficiently
- ✓ Reduce environmental impacts

#### **Demand Side**

- √ Adoption of clean technologies
- ✓ Purchase of clean technology products



# Government has Ability to Catalyze Growth of 'Clean Tech' Sector

# **Supply Side**

### **Existing Incentives:**

- ✓ Environmental Incubator
- ✓ Emerging Technologies Fund
- ✓ Electronic Transportation Development Center
- ✓ Enterprise Zone, STI, Catalyst Fund
- ✓ Workforce Re-training, ETP

#### **Potential Incentives:**

- √ Financial Support/Facilitation
- ✓ Regulations/Requirements
- ✓ Local Firm Preferences
- ✓ Tax Credits (Investors/ Producers/Distributors) (S&F)
- √ Technology Subsidies (S&F)

# **Demand Side**

### **Existing Incentives:**

- ✓ City Solar Incentives
- ✓ PG&E Efficiency Program
- ✓ Green Building Program (including Civic Buildings)
- ✓ Environmentally Preferable Procurement
- ✓ Water Efficient Technologies Incentives

#### **Potential Incentives:**

- √ Regulations/Requirements
- √ 'Clean Tech' Procurement Preferences
- ✓ Education Campaigns
- ✓ Tax Credits (Users) (S&F)



# Elements of 'Clean Tech' Cluster

**Demand** 

# Regional

Large Companies

Small Businesses Household Consumers

Government & Utilities

**External** 

National Markets Global Markets

Developers & Producers (Driving Industries)

# **Renewable Energy**

Solar

Wind Biomass Geothermal Hydro

# **Energy Efficiency**

LEDs / Efficient Appliances Hybrids / Fuel Cells / Electrical Motors

# **Impact Reduction**

Land
Remediation
& Water
Purification

Waste Management

Service Providers

**Suppliers** 

Distribution (Retail & Wholesale)

Maintenance

Business Support

Installation

Engineering & Testing

Specialized Infrastructure

Skilled Workforce

Venture Capital Research Institutions Available Industrial Land/Facilities Government Incentives / Regulations



# Existing San Jose 'Clean Tech' Firms (production & installation)

#### Solar

- Nanosolar
- SunPower Corporation
- Bright Solar
- Hutching Construction
- Malone Contols Corporation
- Ongrid Solar
- Energy Systems
- Fat Spaniel Technologies
- InterPhases Research\*
- Davis Energy Group\*
- NuEdison\*
- SVV Technology Innovations, Inc.\*

#### **Energy Efficiency**

- Philips Lumileds
- OSRAM Opto Semiconductors
- Synergy E. V., Inc.\*
- AFS Trinity Power Corporation\*
- One-Cycle Control\*

#### **Other Renewable Energy Sources**

#### Biofuel/Biodiesel

- Parathon Energy\*
- Silicon Valley Biodiesel\*

#### **Hydropower/Purification**

- IncAquaEss
- **■**Digital Sun, Inc.\*
- •Ekster and Associates\*

#### Wind

- Selsam Innovations\*
- •Wind Tower Systems\*

#### **Geothermal**

■ThermoChem Inc.\*

\*Current participants in Environmental Business Cluster



# **Going Forward**

- Identify/reduce barriers to integrating 'clean tech' into government facilities and the private sector
- Refine incentives to increase supply of and demand for 'clean tech' firms/products
- Develop strategies to leverage existing assets to catalyze 'clean tech' growth
- Explore opportunities for City & partners to showcase 'clean tech' innovations
- Investigate strategies adopted by other communities

